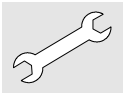

## Chapter 3.2

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# 1 Recommended Tools and Test Equipment

In addition to the common tools every service engineer is carrying in his tool box, the following auxiliary equipment is required for the service on the ADC COMPACT PLUS components:

| Equipment | Spare part number | Application |
|---|---|---|
| Service PC | - | Service program |
| Interface cable RS232, 9pin / 25 pins SUB D | CM+9.9999.1008.0 | Connection Service PC - Digitizer |
| Ground tape | CM+9.9999.0830.0 | Replacement of printed circuit boards / EPROMs |
| Safety lacquer | - | To be used after electronic or mechanical adjustments |
| Test sheet 35 x 43 cm | CM+7.8966.1214.0 | Test exposures for mechanical adjustments |
| CCM Tool | see Diginet: www.diginet-agfa.de | Configuration tool |
| Leeds test phantom | FWW41 | Test exposures |
| Test Images CD-ROM for ADC Compact Plus | - | contains four test images: flatfld, flatfld2, testimg, tsheet |

# 2 Service PC (standard)

The service PC is used:

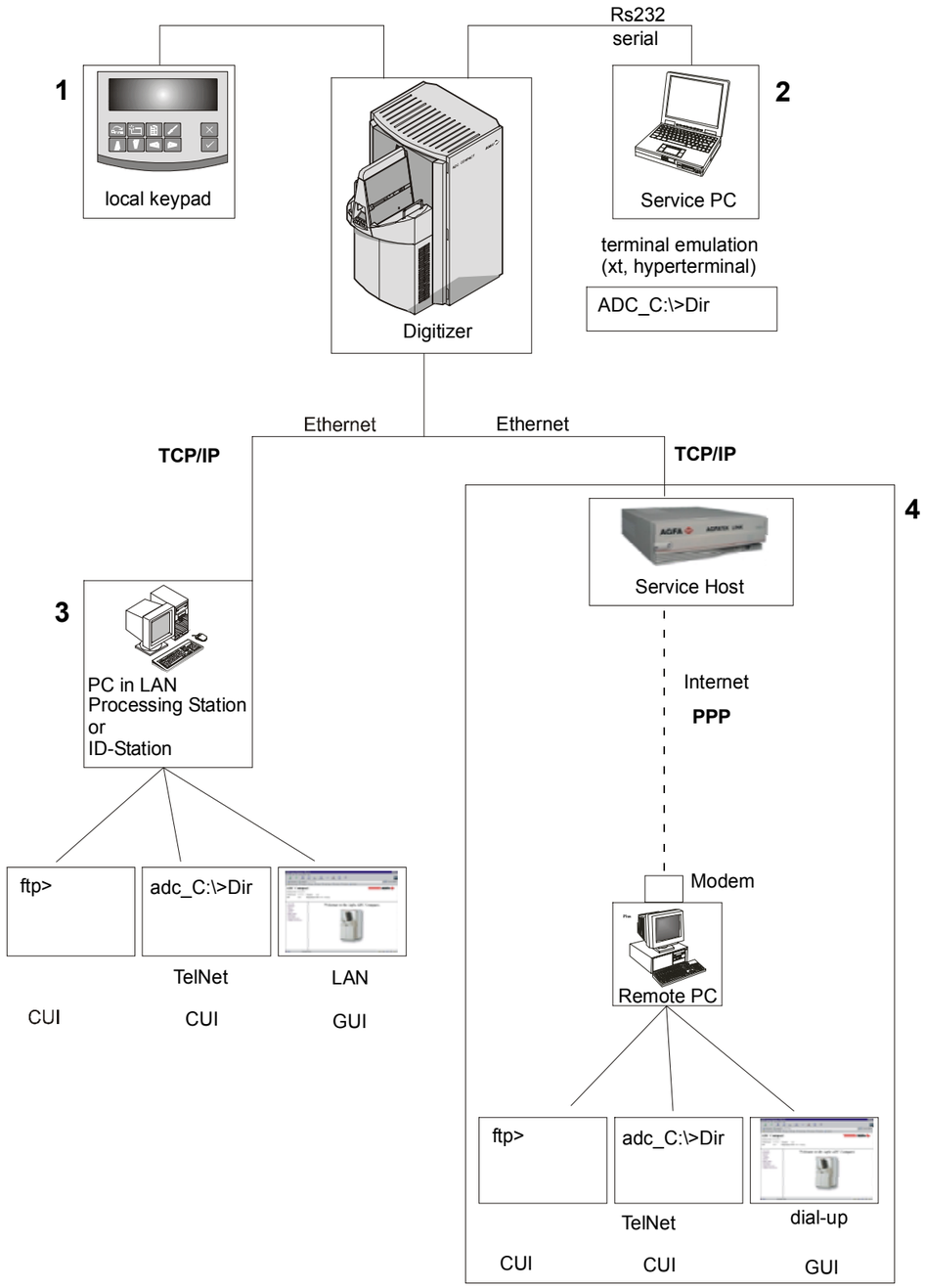
- to create the adc.cpf file with the CCM tool
- to do service via terminal emulation
- to run the show error program

Minimum standard as follows:

| | |
|---|---|
| Type: | Laptop with ASCII keyboard |
| Display: | EGA / VGA compatible |
| CPU: | ≥ 80486SX |
| RAM: | 1 MB |
| Hard disk: | 40 MB |
| Floppy disk drive: | 3.5" -1.44 MB |
| Serial interface: | 2 x RS232 |
| Parallel interface: | 1 x Centronics |
| Operating system: | Win 95/98/NT4.0 |

Service PC connection: at a RS232 interface beside the mains switch of the ADC Digitizer.

## 3. Access to the Service Level of the Digitizer: Overview




**TCP/IP**
"**T**ransmission **C**ontrol **P**rotocol over **I**nternet **P**rotocol"
Internet Protocol (IP) fragments and addresses data to the receiver. Transmission Control Protocol (TCP) sorts the fragments at the receiver and guarantees the transmission.

**Ethernet**
Special means to connect several local PCs to a common network.

**Service Host**
A dial-in host into an AGFA network at a customer site:
- remote access to AGFA devices
- performs routine work, e.g. gathering statistical data from devices
- security aspects

**FTP**
"**F**ile **T**ransfer **P**rotocol". manufacturer-independent transport protocol, supported by TCP. independent from Operating Systems and SW-architecture.
Most important features: Creating, deleting and showing folders; levels out data coding, file structures, etc. between the communicating PCs.

**PPP**
"**P**oint to **P**oint **P**rotocol". Standard protocol that allows connection to the **I**nternet; supports TCP/IP. It works on the 2nd layer (data link layer) of the OSI reference model.

**TelNet**
makes it possible to log in remotely to any PC, provided that access is allowed.
It offers a CUI; a lot of service interventions can be performed directly via command line.

**LAN**
**L**ocal **A**rea **N**etwork
Several PCs are connected to each other in a limited area.

**Netscape Communicator**
Web-Browser needed to guarantee all the functions of ADC web-pages, (esp. uploads/downloads).

**CUI**
"**C**haracter based **U**ser **I**nterface"
Commands are entered in command lines via keyboard.

**GUI**
"**G**raphical **U**ser **I**nterface"
Commands are carried out via mouse klick on menu bars and icons.

The ADC service concept offers four different ways of access to the digitizer. Beside the two most common ways via local keypad (1) and Service PC (2),( on-site presence necessary), remote access via LAN(3) and Internet (4) gains mor e and more importance.

**1) Local keypad**
The local keypad or operation terminal is part of the digitizer and allows on-site access to the machine. All commands are directly entered via 10 keys on the keypad. Easy to handle due to online-instructions.

**2) Service PC**
The Service PC can be connected to the digitizer via the serial interface RS232. Commands are entered in command lines (CUI).

**3) PC in LAN**
The digitizer can be called from any PC connected to LAN. Three different ways of access are offered:

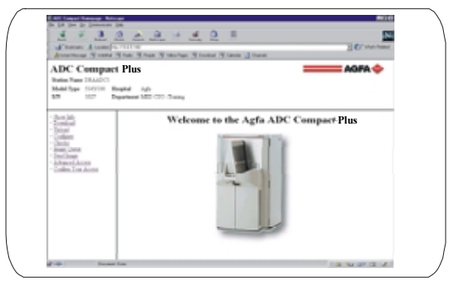
Input via ftp: only one connection at the same time

```
Ftp>put
```

Input via TelNet: only one connection at the same time

```
adc_C:\> dir
```

menu -driven input: several connections possible at the same time



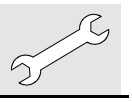

**4) Remote PC**
Dial-up connection to the digitizer. Prerequisites: Access to Internet, Service Host/Modem, (password required)
Three different ways of access are offered:(see item3).

# 4 Service Program for the Digitizer

## 4.1 Overview

| Service level 1 | Service level 2 | Service level 3 |
|---|---|---|
| 1 INFO | 1 Device info<br>2 Network info | |
| 2 MAINTENANCE | 1 SAL Inspection<br>2 Calibration<br>3 Test and Adjust cycle<br><br><br><br><br>4 Confirm Maintenance<br>5 Confirm Repair<br>6 Clear Infocounter<br>7 Confirm Modification<br>8 Confirm Installation | <br><br>1 Scan with transmission<br>2 Scan cycle – no image<br>3 Scan – no era, no img<br>4 Handling Cycle<br>5 Adjustment Cycle |
| 3 SAVE on floppy | 1 Infocounter file<br>2 Machine specific data<br>3 Service report<br>4 Session files<br>5 Cpf file<br>6 Alarm log file | |
| 4 SHOW error | 1 Explain error code<br>2 Error hit list | |
| 5 INSTALL from floppy | 1 Software<br>2 Machine specific data<br>3 PMT settings (mfa/mfb)<br>4 Optics parameters<br>5 Scanner parameters<br>6 cpf-file<br>7 language files<br>8 HW modification ID | |

| Service level 1 | Service level 2 | Service level 3 |
|---|---|---|
| 6 CONFIGURE | 1 Local network ID | |
| | 2 User terminal language | |
| | 3 Active Alert System | 1 Alert system status<br>2 Alert destination<br>3 Send test alert |
| 7 DIAGNOSTICS | 1 Scanning and signals | |
| | 2 Mechanical modules | 1 Input buffer & R/F TAG<br>2 Cassette module 1<br>3 Cassette module 2<br>4 Rotation unit<br>5 Prescan transport + vac.<br>6 Scanner<br>7 Postscan transport |
| | 3 Erasure Unit | |
| | 4 Image transmission | |
| 8 Checks | 1 System check | |
| | 2 Check laser | 1 Optical Path<br>2 Laser power on IP |
| | 3 Check destinations | Ping to ... |
| | 4 Check disk | |
| | 5 Send flatfield | |
| | 6 Send Jitter Pattern | 1 Calibration pattern<br>2 Banding pattern |
| | 7 Check I/O-bus | |



# 5 Remote Service via ADC Web Pages

## 5.1 General Information

Access for Service Interventions is possible by four different ways:
1. locally via keypad.
2. remotely via terminal emulation (RS232 Interface), e.g. xt, hyperterminal.
3. remotely via a PC in LAN (telnet).
4. remotely via a dial-up connection (ppp).

This document describes the access via a graphic User Interface (ADC web pages); item 3 and 4.
The ADC web pages complete the service concept of MI CSO. They follow the structure of the well-known User Terminal.
Access via web pages guarantees a convenient and fast service by making use of standard tools. The usage of different ports for these ways allows working simultaneously with FTP, HTTP, and TelNet.

### 5.1.1 What are HTML pages?

HTML stands for **H**yper **T**ext **M**arkup **L**anguage. It is a programming language for the creation of web pages for the Internet. HTML defines layout, fonts and colors of the page and integrates multimedia functions as for example graphics, animations or hyperlinks. A special Web-browser is needed to view a HTML page.

### 5.1.2 Prerequisites

- direct network connection or dial-up network connection; TCP / IP (e.g. Service Host).
- digitizer software COP1215 / SOL1108 loaded (restriction: upload function not implemented yet).
- web browser installed (recommended: ≥ Netscape Navigator 4.0; Internet Explorer supports all functions except file transfer).

### 5.1.3 How to start HTML pages of a digitizer

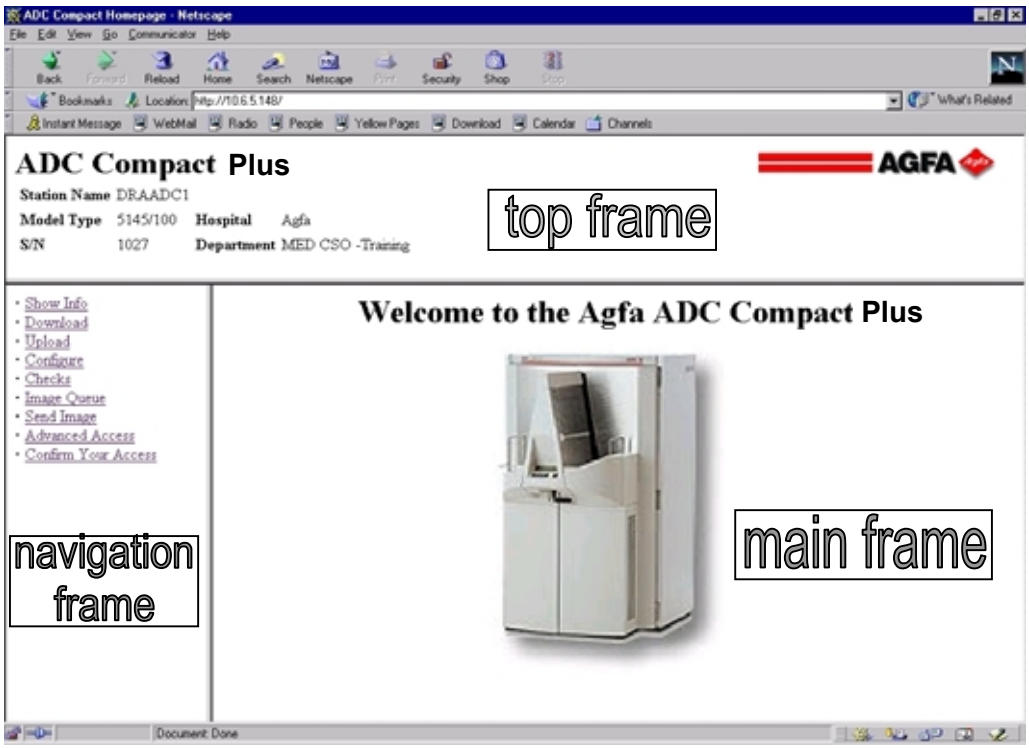
(1) Make sure that the digitizer you want to examine is switched on and you can access it remotely.
(2) Open your internet browser.
(3) Enter the IP Address of the digitizer in the URL Address Field of your browser.
(4) You will be asked to enter a user name and a password. If you do not know the proper password, please contact GSC Munich.
(5) HTML pages will open with the *Welcome* Page on your screen.

### 5.1.4 Navigation Instructions

HTML pages are structured in a three frames surface. The top frame is static and displays information about the digitizer and its location. The lower left frame is the navigation frame and displays a set of topics. Information about a selected topic will open in the main frame.
In the main frame most of the information pages are equipped with a "Home" link and a "Back" link. "Home" leads back to the *Welcome* Page. "Back" returns to the primarily selected page.

## 5.2 Welcome Page

After a successful login the *Welcome* Page opens.




Welcome Page

## 5.3 Functions of ADC Web Pages: Overview

| 1st level | 2nd level | Comment |
|---|---|---|
| Show Info | Device Info | typical info on the device, e.g. type. |
| | Device Status | emulates the User Interface; shows the User Terminal in current status. |
| | User Terminal Messages | like Device Status |
| | Error Messages | shows a history of errors that occurred during operation. Latest error on top. |
| | Network Info | shows info on network, e.g. hostname, IP-address. |
| | Test Report | shows and reports history on performed local service interventions on device. Latest on top. |
| | Info Counter | shows detailed info on device, e.g. SW-version, serial number, modifications. |
| | Scanner | shows calibration lines in graphic format for various resolutions (mainly for production purposes). |

When selecting files for downloads, these files are first zipped and copied to the so called download area (adc_c:\dl\). From the download area the zip – files can be downloaded to a directory of your HDD.

| | | |
|---|---|---|
| Download | Infocounter File | downloads the infocounter. |
| | Session Files | downloads one ore more `*.ses` files. |
| | Test Report | downloads the report file *.rpt. |
| | CPF File | downloads the ADC.cpf file. |
| | Raw Image | downloads a raw image folder. This takes several minutes. |
| | Machine Specific Data | downloads the machine specific data = backup. |
| | Any File | downloads any file. |
| | Show Contents of the Download Area | Displays a list of the files that have been prepared for download. |
| | Cleanup the Download Area | Clears the list of the files that have been prepared for download. |

| 1st level | 2nd level | Comment |
|---|---|---|
| Upload | Software | allows to upload the Operating System (`aos*.zip`), Application Software (`app*.zip`) or Error Messages and Diagnostics (`err*.zip`). Software patches (`patx.zip`) can be uploaded, too. |
| | Language Files | upload of language files to customize the system language. |
| | CPF File | the cpf-file can be uploaded. |
| | Machine Specific Parameters | machine specific parameters (backup) can be uploaded. |
| | Any File | allows an upload of any file. |
| Configure | Local Network ID | allows changes in the network settings.<br> changes are activated immediately. |
| | User Terminal Language | the standard language for normal user and key operator of the system can be changed.<br> changes are activated immediately. |
| | Date and Time | manual setting of date and time |
| Checks | Quick Check | automatic selftest of the device. This test is recommended to be run as first step in troubleshooting. |
| | Check Laserpower | shows the history of the laser power |
| | Check Destinations | sends a ping to the Processing Stations defined in the cpf-file. Checks and displays these destinations, including their host names and their status. |
| | Check Disk(s) | check of the hard disk or floppy drive, comparable to chkdsk in MS-Dos. Being a dynamic process, this cannot be displayed in HTML. |
| Image Queue | Show Queue | displays all the images in the queue; On display is "Patient Name", "Location on Disk" and "Status". |
| | Delete Queue Entries | displays all the images that can be deleted. |
| | Reroute | reroutes all further incoming images to a selected destination. |
| | Retransmit | resends an image when the job is in the status "error". On display are all the images that can be retransmitted. |

| 1st level | 2nd level | Comment |
|---|---|---|
| Send Image | Test Image | Each test image ("mosaic image") can be sent to any of the Processing Stations in the network configured in the cpf-file. |
| | Flatfield (Calibration Pattern) | Each flatfield can be sent to any of the Processing Stations in the network configured in the cpf-file. |
| | Flatfield (Banding Pattern) | Each flatfield can be sent to any of the Processing Stations in the network configured in the cpf-file. |
| | Testsheet | Each test sheet can be sent to any of the Processing Stations in the network configured in the cpf-file. |

The following item **Advanced Access** allows access via the command line. It is for advanced users only. Protective mechanisms are no longer in force.

| | | |
|---|---|---|
| Advanced Access | | additional commands can be entered directly in the command line.<br>Your intervention is not visible for any user. Do not interfere with ongoing user activities ! |
| Confirm Your Access | | this shell updates the infocounter.<br>Please enter this information whenever you finished a service intervention. You can choose between `Remote Maintenance` and `Remote Repair.` |